Oral Testimony of Colonel Charles J. Fiala, Jr.
Commander and District Engineer, Baltimore District
US Army Corps of Engineers

Committee on Resources
Subcommittee on National Parks, Recreation, and Public Lands

October 30, 2001

Mr. Chairman and members of the subcommittee, thank you for inviting me to testify before you today. I am Colonel Charles J. Fiala, Jr., Commander and District Engineer of the Baltimore District, United States Army Corps of Engineers.

The Corps' Baltimore District has a long, distinguished history of service to the nation, the region, and this city. Members of my 1200-person team have recently supported recovery operations at the World Trade Center and the Pentagon. For more than two decades, my District has been in the forefront of environmental restoration in Chesapeake Bay, including projects that have improved water quality and habitat in the Potomac, Anacostia, and Susquehanna Rivers.

You asked me to provide information on the legally permitted discharges of the Washington Aqueduct, a division within the Baltimore District. I would first like to summarize the major role the Aqueduct plays in support of our nation's capital and the surrounding areas, then respond to the issues raised in your invitation.

In 1853, at Congress' direction, the Corps began construction of the Aqueduct. We have supplied water to the District of Columbia since 1859. Many of the original structures from the 1850s are still in operation and many others date to the 1920s. Most of the real estate supporting the Aqueduct's mission and current treatment processes was acquired and functioning decades before the C&O Canal became a national park.

Today, the Aqueduct provides all the water supplied to Washington, D.C.; Arlington County, Virginia; and the City of Falls Church, Virginia. This area is home to many agencies that support the administration and defense of this country, including the very building we are meeting in today. For example, the Aqueduct supplied the water used to fight the fires at the Pentagon on September 11. Providing high quality, safe, and affordable water to the approximately one million consumers in these areas, particularly in light of the September 11 attack on our country, is one of my highest priorities.

The Aqueduct is a unique federal institution in that it operates like a business. It gets its operational and capital improvement funds from the fees it charges its customers for the water it supplies. It is regulated by the Safe Drinking Water and the Clean Water Acts and takes its compliance responsibilities seriously. It operates in accordance with the National Pollutant Discharge Elimination System (NPDES) permits issued to it by both the State of Maryland and by the Environmental Protection Agency (EPA). These permits allow the Aqueduct to make routine discharges from the sediment basins and infrequent maintenance-related discharges.

All water treated by the Aqueduct comes from the Potomac River that naturally transports a large volume of sediment. Treatment involves a three-step process that includes sedimentation, filtration, and disinfection. In the case of the Aqueduct, sediment removal begins in an initial settlement basin, then occurs more actively in six large basins with the aid of a coagulant, aluminum sulfate, that is typically used in the water production industry.

Periodically, these six sedimentation basins must be cleaned of the sediment build-up. Their contents, which include raw or river water, the accumulated sediments, and the accumulated coagulant, are flushed to the Potomac River in keeping with the terms of the EPA discharge permit. We estimate that about 95 percent of the sediments discharged are naturally occurring sediment from the river and five percent of the solids are due to the coagulant.

The volume of solids discharged to the Potomac River from the six basins is only about one-half of the total volume of solids removed from the water taken from the river; at a maximum, it represents less than one percent of the solids in the river flow during discharge.

With respect to the non-routine discharges for plant maintenance, the State of Maryland permits the Aqueduct to discharge raw water, that is, untreated water, into streams and on lands which cross Park property.

EPA has also issued the Aqueduct a permit that allows discharge of raw water dosed with coagulant if maintenance is required on a major conduit. The path of this discharge is open and crosses Park property. Discharges of this nature seldom occur, about once every two years, for approximately six hours. Two other discharges are allowed under this permit. One is to drain ground water from under sedimentation basins. That water goes directly to the Potomac River. The other is to drain water from another large conduit to Rock Creek. That discharge might occur only once in 10 years and involves sediment-free, clear unchlorinated water.

All our discharge points or outfalls are properly regulated by and comply with federal and state permits. At this time, there are no known adverse effects from these discharges on C&O Canal National Historic Park property.

The next issue you asked me to discuss is the impact of the sediment discharges, if any, upon the shortnose sturgeon. As you are aware, that particular question is the subject of current litigation brought by the National Wilderness Institute against several of the federal agencies testifying here today. In accordance with the Endangered Species Act, consultation among the federal agencies regarding the shortnose sturgeon is ongoing at this time.

I can mention that at the request and direction of the EPA, we contracted for two significant scientific efforts to study the impacts, if any, of the sediment discharges upon the aquatic life of the Potomac River. Based on a study plan coordinated with the Fish and Wildlife Service, approved by EPA Region 3, and performed in accord with accepted scientific procedure and analysis, the most recent study was just completed and sent to these agencies. EPA is now determining whether to reissue the Aqueduct's current permit for the sediment discharges.

Meantime, we continue to work closely with the EPA and our other federal partners to do what is best for the environment and to ensure the availability and safety of the drinking water we supply to this region. Again, I thank you for the opportunity to be here this afternoon to apprise the subcommittee about the operations of the Washington Aqueduct and to respond to your questions.